

# Utah 2020 Chukar Partridge Update

## Utah Division of Wildlife Resources

23 September 2020



Starting in 2019 the Utah Division of Wildlife Resources has implemented a new chukar survey methodology to evaluate chukar numbers and production using game cameras set on water sources throughout the state. The camera survey allows data to be captured in a wide geographic area and provide data on the years production and a year to year index of abundance. Helicopter surveys have been discontinued due to increasing cost and safety concerns related to low level helicopter flight.

During the initial year cameras were placed at 20 trend sites throughout the state. The project was expanded to 42 sites for 2020. Volunteers from the Utah Chukar and Wildlife Foundation and the UT DWR Dedicated Hunter program were critical for processing photos and summarizing chukar visits to water sources. As we establish additional sites and accumulate multiple years of data the information from the monitoring project will become more informative.

We have had an interesting combination of weather this year. The moderate winter leading into a relatively dry spring and summer should have produced good initial nesting conditions, but may have left brooding areas a little drier than optimal limiting grass and forb, and therefore insect (brood food) growth. A few cold spring storms also had the potential to impact young broods. However, as always, precipitation in the west desert is spotty and conditions can differ significantly from one range to another, or even between areas on the same mountain range. Overall production, and therefore populations are highly variable across the state, with some areas showing almost no production and others having large brood coveys present. Chukar hunters can expect to see average to sparse year in many areas, with significant pockets of good production.



**Chukar production can be highly variable year to year. Here is an example from the 2020 camera survey of multiple successful broods combined at a guzzler.**



**In years of poor production we may see significant use of water sources, but with coveys comprised of entirely adults. With the natural life span of a chukar only being a few years, no young is indicative of a declining population.**

Of the 20 cameras sites established in 2019, 14 were repeated in 2020. These repeated measures are key to establishing a population index and understanding year to year variation. Of the 6 that were not repeated, 5 were repositioned due to lack of use at the 2019 sites, and one was deployed but malfunctioned. Twenty-six new sites were established in 2020.

The majority of cameras with repeated counts showed a lower number of chicks per adult than 2019, indicating relatively low production heading into this season. However, there were areas



that had higher production than 2019, including areas of the Book Cliffs and Desert Mountain.

Although the newly established sites for this cannot not show production relative to last year, there were high visitation rates and encouraging chick to hen ratios at a number of sites. Areas with relatively good production include Lakeside, Deep Creek, Lake, Drum, Cricket, and Dugway Mountains.

The highest ratios of chicks per adult chukar was seen in the Central region, and was similar to 2019 production. Population will likely be slightly up in the Central region. The Northern, Southern and Southeast Region all showed production of less than one chick per adult, and will likely see declines in population this year relative to 2019.

**This table shows average adult visits per day of camera monitoring, average number of chick (young of the year) visits per day and the number of chicks per adult. The number of chicks per adult is a measure for the trajectory of the population, and potential abundance of chukar partridge during the hunting season.**

	2020 Adults Per Day	2020 Juvenile Per Day	2020 Chicks per Adult	2019 Chicks per Adult	2020 Cameras Reviewed
Northern Region	2.21	2.81	0.92	3.31	5
Central Region	13.36	14.17	2.21	2.22	18
Southern Region	11.68	7.31	0.79	1.99	9
Southeast Region	1.32	1.95	0.93	2.77	4
State Average	10.57	9.96	1.52	2.41	



Chukars are well adapted to the dry climate of Utah, however they can benefit from water developments that provide water during critical periods during the summer, and to meet the higher water demand of young birds. Water developments have been shown to increase the distribution and abundance of chukar. In addition to benefitting chukars, water developments can also benefit a variety of other animals including deer, pronghorn, elk, raven (bottom left), fox (top right), bobcat (bottom right), raptors (coopers hawk, top left), and others.